

**AVOIDED COST ENERGY PRICING REPORT #3  
DECEMBER 11, 1996**

by  
Scott Tomashefsky  
California Energy Commission  
Electricity Resource Assessment Office  
(916) 654-4625

*Disclaimer: The views and conclusions expressed in this paper are those of the author and should not be interpreted as necessarily representing the policies of either the Energy Commission or the State of California.*

**This report is number three of a series that examines short-run avoided cost prices paid by California utilities to qualifying facilities (QFs). Past issues are available on the Commission's web site.**

Two developments this month will have significant implications for avoided cost energy payments in the near term. The first is the adoption of a new formula for calculating avoided cost energy prices. On December 9, the CPUC issued a decision adopting a formula proposed by the San Diego Gas and Electric and the California Cogeneration Council in a settlement agreement filed last month. The actual decision is not yet available.

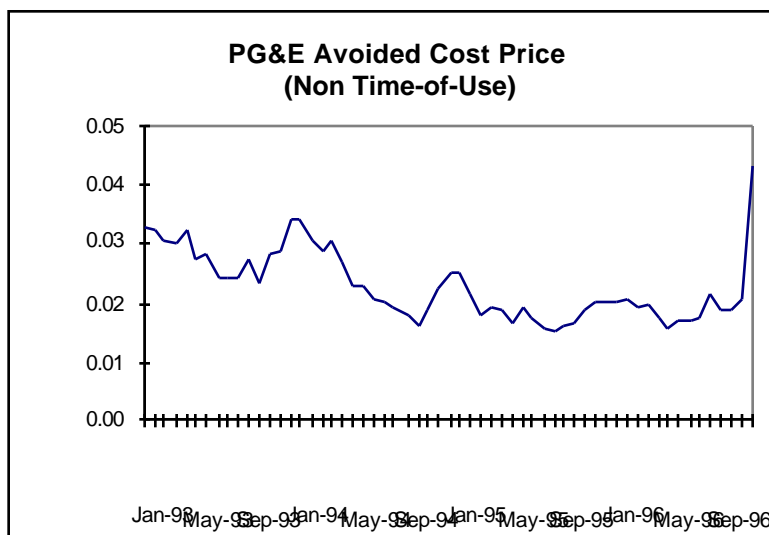
Assuming that no surprises are contained in the text of the decision, the formula establishes a benchmark avoided cost price and adjusts the benchmark each month based on natural gas prices. Table 1 provides the actual formula. A discussion of the factors included in the formula will not be repeated here since it is included in the second Avoided Cost Energy Pricing Report dated December 2.

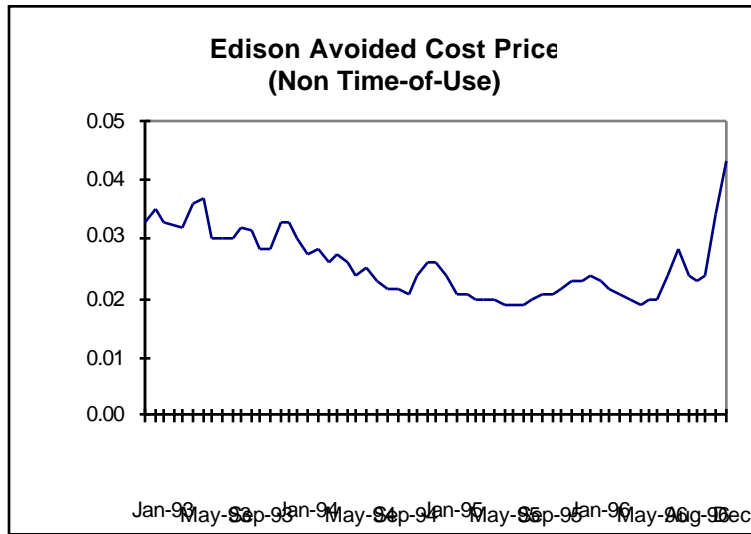
TABLE 1 NEWLY ADOPTED AVOIDED COST ENERGY FORMULA
$\text{Price} = (P_o + P_o * (GP_n - GP_o)/GP_o * \text{Factor}) * \text{TOU}$
<u>Definitions:</u> 1) $P_o$ - Starting energy price based on 1995 average energy prices paid by each public utility to non-utility power generators. 2) $GP_n$ - Gas price for given period at the California border. 3) $GP_o$ - Starting gas price index based on 1995 average of California index gas prices. 4) Factor - Fraction of time utility avoided energy cost varies with the border price of gas. 5) TOU - Factor used to adjust price based on time of use.

The second is the continued run-up in natural gas prices, the principal factor driving the avoided cost energy formula. For December, the average price of natural gas delivered to PG&E at the California border increased by \$1.29 to \$3.68 per MMBtu. Edison deliveries at the California border increased \$1.00 to \$4.01 per MMBtu. According to Natural Gas Week and Natural Gas Intelligence reports in their respective December 2, 1996 publications, the latest increase is a direct result of market traders having to cover short positions when a cold wave hit concurrently with the expirations of many futures contracts. Additionally, storage levels are still below historical averages.

With natural gas the feedstock for most electricity generated by QFs, QF production costs have risen substantially because of the higher gas prices. To compensate the QFs for the added costs, short-term avoided cost energy prices paid by California utilities to QFs are at their highest levels since early 1986. For the December 9 to January 12 period, QFs selling energy back to PG&E and Edison will receive an average (non time-of-use) energy payment of 4.3 cents per kWh. Edison's payment is 25 percent higher than last month and 50 percent higher than two months ago. PG&E's price is about 50 percent higher than last month and more than double the October payment.

Avoided cost prices since 1993 on a non time-of-use basis for PG&E and Edison are illustrated in the two charts shown below.





Implementation of the newly-adopted formula will produce even higher payments in the future in most cases. Beginning with the January filing date, the utilities will use the new formula and retroactively fix the prices used in the October and November avoided cost filings. It will remain in effect until the CPUC is convinced that electricity prices available through the Power Exchange represent competitive market prices.

Table 2 compares current avoided cost prices with prices that may be retroactively imposed for December in next month's filing. Compared to the current formula, QFs receive higher payments from PG&E under both alternative approaches being considered in this proceeding. Edison payments are also higher to QFs with the exception of payments made during Super Off Peak periods.

TABLE 2		
ILLUSTRATIVE AVOIDED COST COMPARISON		
DECEMBER 1996		
	Edison	PG&E
Base Energy Price (Cents/kWh)	2.081	2.397
GP <sub>n</sub> (12/96 CA Border \$/MMBtu)	4.013	3.683
GP <sub>o</sub> (1995 Avg CA Border \$/MMBtu)	1.398	1.639
Factor (Share Avoided Fuel is Gas)	70.7%	78.8%
QF Prices in Effect 12/9/96	4.300	4.331
QF Rates Under Adopted Formula		
On-Peak	n/a	n/a
Semi-Peak	5.434	4.826
Off-Peak	n/a	n/a
Super Off-Peak	4.216	4.633

Similar to QFs, utility electric generation costs are now higher for those plants using natural gas as the feedstock. As a result, utilities will undercollect electricity revenues which form the basis for current electricity rates. Since undercollected revenues are generally recovered after they are incurred, the ultimate impact on electricity rates should be minimal until new rates are adopted in the Electricity Cost Allocation (ECAC) proceeding held periodically by the California Public Utilities Commission (CPUC). If prices remain high for an extended period of time, the utilities will likely file a request to adjust rates upward prior to the next ECAC.